



SEQUENCE LISTING

<110> O'Toole et al.

<120> Composition and Method for Treating Lupus Nephritis

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<140> 10/719,385

<141> 2003-11-21

<150> PCT/US03/37339

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<150> 60/428,094

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 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
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 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605
 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620
 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640
 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655
 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670
 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685
 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735
 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830

Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135

Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150

 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165

 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180

 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200

 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215

 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230

 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Val Ile Ala
 1235 1240 1245

 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260

 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280

 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295

 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310

 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325

 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340

 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360

 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375

 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390

 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405

 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420

 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440

Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455

 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470

 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485

 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500

 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520

 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535

 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550

 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565

 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580

 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600

 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615

 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630

 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645

 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660

 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680

 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695

 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710

 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725

 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
1745 1750

<210> 4
<211> 1753
<212> PRT
<213> Homo sapiens

<400> 4
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
1 5 10 15

Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
115 120 125

Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
165 170 175

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
180 185 190

Glu Thr His Gly Asn Ile Met Thr Glu Arg Gln Val Ser Arg Trp Phe
195 200 205

Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
210 215 220

Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
225 230 235 240

Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His

245	250	255
Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe 260	265	270
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys 275	280	285
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly 290	295	300
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile 305	310	315
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr 325	330	335
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr 340	345	350
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser 355	360	365
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys 370	375	380
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr 385	390	395
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala 405	410	415
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly 420	425	430
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu 435	440	445
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr 450	455	460
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu 465	470	475
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr 485	490	495
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln 500	505	510
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp 515	520	525
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr 530	535	540
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala		

545	550	555	560
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val			
565	570	575	
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro			
580	585	590	
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile			
595	600	605	
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val			
610	615	620	
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr			
625	630	635	640
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met			
645	650	655	
Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met			
660	665	670	
Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu			
675	680	685	
Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser			
690	695	700	
Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro			
705	710	715	720
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile			
725	730	735	
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His			
740	745	750	
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys			
755	760	765	
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile			
770	775	780	
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro			
785	790	795	800
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys			
805	810	815	
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys			
820	825	830	
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His			
835	840	845	
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr			

850	855	860
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys		
865	870	875
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn		
885	890	895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys		
900	905	910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val		
915	920	925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu		
930	935	940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp		
945	950	955
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Asp		
965	970	975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu		
980	985	990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg		
995	1000	1005
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr		
1010	1015	1020
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys		
1025	1030	1035
1040		
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys		
1045	1050	1055
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile		
1060	1065	1070
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val		
1075	1080	1085
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr		
1090	1095	1100
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr		
1105	1110	1115
1120		
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu		
1125	1130	1135
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala		
1140	1145	1150
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu		

1155	1160	1165
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile		
1170	1175	1180
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln		
1185	1190	1195
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr		
1205	1210	1215
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser		
1220	1225	1230
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala		
1235	1240	1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu		
1250	1255	1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg		
1265	1270	1275
1280		
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu		
1285	1290	1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg		
1300	1305	1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu		
1315	1320	1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
1330	1335	1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
1345	1350	1355
1360		
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
1365	1370	1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
1380	1385	1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		
1395	1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
1410	1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430	1435
1440		
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
1445	1450	1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		

1460	1465	1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		
1475	1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His		
1490	1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln		
1505	1510	1515
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser		
1525	1530	1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His		
1540	1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		
1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
1605	1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		
1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser		
1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	

<210> 5
<211> 1752
<212> PRT
<213> Homo sapiens

<400> 5
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
1 5 10 15

Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
115 120 125

Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg Pro Tyr Arg Val Glu
145 150 155 160

Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys Tyr
165 170 175

Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp Glu
180 185 190

Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe Val
195 200 205

Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu Tyr
210 215 220

Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr Lys
225 230 235 240

Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His Leu
245 250 255

Val Asp Glu Thr Met Asp Pro Phe Val Asp Lys Ile Gly Tyr Phe Ser
260 265 270

Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys Cys
 275 280 285
 Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly Leu
 290 295 300
 Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile Pro
 305 310 315 320
 His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr Leu
 325 330 335
 Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr Ala
 340 345 350
 Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser Leu
 355 360 365
 Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys Val
 370 375 380
 Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr Leu
 385 390 395 400
 Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala Asp
 405 410 415
 Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly Leu
 420 425 430
 Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu Ser
 435 440 445
 Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr Ala
 450 455 460
 Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu Leu
 465 470 475 480
 Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr Leu
 485 490 495
 Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln Thr
 500 505 510
 Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp Asp
 515 520 525
 Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr Leu
 530 535 540
 Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala Asp
 545 550 555 560
 Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val His
 565 570 575

Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro Ile
 580 585 590

 Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile Ser
 595 600 605

 Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val Leu
 610 615 620

 Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr Gly
 625 630 640

 Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met Ile
 645 650 655

 Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met Asn
 660 665 670

 Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu Arg
 675 680 685

 Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser Gln
 690 695 700

 Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro Ser
 705 710 720

 Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile Gly
 725 730 735

 Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His Glu
 740 745 750

 Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys Ile
 755 760 765

 Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile Met
 770 775 780

 Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro Arg
 785 790 795 800

 Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys Thr
 805 810 815

 Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys Pro
 820 825 830

 Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His Gly
 835 840 845

 Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr His
 850 855 860

 Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys Arg
 865 870 875 880

Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn Asp
 885 890 895
 Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys Ile
 900 905 910
 Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val Ala
 915 920 925
 Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu Val
 930 935 940
 Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp Ser
 945 950 955 960
 Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp Arg
 965 970 975
 Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu His
 980 985 990
 Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg Thr
 995 1000 1005
 Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr Leu
 1010 1015 1020
 Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys Ala
 1025 1030 1035 1040
 Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys Gly
 1045 1050 1055
 Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile Glu
 1060 1065 1070
 Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val His
 1075 1080 1085
 Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr Gln
 1090 1095 1100
 Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr His
 1105 1110 1115 1120
 Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu Phe
 1125 1130 1135
 Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Val Pro Ala Ser
 1140 1145 1150
 Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu Ile
 1155 1160 1165
 Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile Leu
 1170 1175 1180

Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln Gln
 1185 1190 1195 1200

 Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr Val
 1205 1210 1215

 Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser Gln
 1220 1225 1230

 Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala Leu
 1235 1240 1245

 Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu Asp
 1250 1255 1260

 Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg Asp
 1265 1270 1275 1280

 Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu Leu
 1285 1290 1295

 Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg Arg
 1300 1305 1310

 Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu Arg
 1315 1320 1325

 Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu Leu
 1330 1335 1340

 Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala Gly
 1345 1350 1355 1360

 Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu Ser
 1365 1370 1375

 Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu Asp
 1380 1385 1390

 Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met Glu
 1395 1400 1405

 Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu Asp
 1410 1415 1420

 Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala Val
 1425 1430 1435 1440

 Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr Val
 1445 1450 1455

 Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe His
 1460 1465 1470

 Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu Cys
 1475 1480 1485

Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His Tyr
 1490 1495 1500

 Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln Arg
 1505 1510 1515 1520

 Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser Lys
 1525 1530 1535

 Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Ala Leu His Thr
 1540 1545 1550

 Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala Leu
 1555 1560 1565

 Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser Leu
 1570 1575 1580

 Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr Pro
 1585 1590 1595 1600

 Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala Thr
 1605 1610 1615

 Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys Glu
 1620 1625 1630

 Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr Arg
 1635 1640 1645

 Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr Leu
 1650 1655 1660

 Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His Pro
 1665 1670 1675 1680

 Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser Thr
 1685 1690 1695

 Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser Ser
 1700 1705 1710

 Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser Leu
 1715 1720 1725

 Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val Gln
 1730 1735 1740

 Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 6
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 6

Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser	1	5	10	15
Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu	20	25	30	
Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu	35	40	45	
Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys	50	55	60	
Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu	65	70	75	80
Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu	85	90	95	
Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val	100	105	110	
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys	115	120	125	
Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val	130	135	140	
Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val	145	150	155	160
Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys	165	170	175	
Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp	180	185	190	
Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe	195	200	205	
Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu	210	215	220	
Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr	225	230	235	240
Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His	245	250	255	
Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe	260	265	270	
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys	275	280	285	
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly	290	295	300	

Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320

 Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335

 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350

 Ala Ile Asn Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365

 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380

 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400

 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415

 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430

 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445

 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460

 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480

 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495

 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510

 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525

 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540

 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560

 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575

 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590

 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605

Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620
 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640
 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655
 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670
 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685
 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735
 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910

Ile	Glu	Asp	Met	Arg	Ile	Lys	Val	Met	Ile	Leu	Glu	Phe	Leu	Thr	Val
915							920							925	
Ala	Val	Glu	Thr	Gln	Pro	Gly	Leu	Ile	Glu	Leu	Phe	Leu	Asn	Leu	Glu
930							935							940	
Val	Lys	Asp	Gly	Ser	Asp	Gly	Ser	Lys	Glu	Phe	Ser	Leu	Gly	Met	Trp
945							950							955	
Ser	Cys	Leu	His	Ala	Val	Leu	Glu	Leu	Ile	Asp	Ser	Gln	Gln	Gln	Asp
965							970							975	
Arg	Tyr	Trp	Cys	Pro	Pro	Leu	Leu	His	Arg	Ala	Ala	Ile	Ala	Phe	Leu
980							985							990	
His	Ala	Leu	Trp	Gln	Asp	Arg	Arg	Asp	Ser	Ala	Met	Leu	Val	Leu	Arg
995							1000							1005	
Thr	Lys	Pro	Lys	Phe	Trp	Glu	Asn	Leu	Thr	Ser	Pro	Leu	Phe	Gly	Thr
1010							1015							1020	
Leu	Ser	Pro	Pro	Ser	Glu	Thr	Ser	Glu	Pro	Ser	Ile	Leu	Glu	Thr	Cys
1025							1030							1035	
Ala	Leu	Ile	Met	Lys	Ile	Ile	Cys	Leu	Glu	Ile	Tyr	Tyr	Val	Val	Lys
1045							1050							1055	
Gly	Ser	Leu	Asp	Gln	Ser	Leu	Lys	Asp	Thr	Leu	Lys	Lys	Phe	Ser	Ile
1060							1065							1070	
Glu	Lys	Arg	Phe	Ala	Tyr	Trp	Ser	Gly	Tyr	Val	Lys	Ser	Leu	Ala	Val
1075							1080							1085	
His	Val	Ala	Glu	Thr	Glu	Gly	Ser	Ser	Cys	Thr	Ser	Leu	Leu	Glu	Tyr
1090							1095							1100	
Gln	Met	Leu	Val	Ser	Ala	Trp	Arg	Met	Leu	Ile	Ile	Ala	Thr	Thr	
1105							1110							1115	
His	Ala	Asp	Ile	Met	His	Leu	Thr	Asp	Ser	Val	Val	Arg	Arg	Gln	Leu
1125							1130							1135	
Phe	Leu	Asp	Val	Leu	Asp	Gly	Thr	Lys	Ala	Leu	Leu	Leu	Val	Pro	Ala
1140							1145							1150	
Ser	Val	Asn	Cys	Leu	Arg	Leu	Gly	Ser	Met	Lys	Cys	Thr	Leu	Leu	Leu
1155							1160							1165	
Ile	Leu	Leu	Arg	Gln	Trp	Lys	Arg	Glu	Leu	Gly	Ser	Val	Asp	Glu	Ile
1170							1175							1180	
Leu	Gly	Pro	Leu	Thr	Glu	Ile	Leu	Glu	Val	Leu	Gln	Ala	Asp	Gln	
1185							1190							1195	
Gln	Leu	Met	Glu	Lys	Thr	Lys	Ala	Lys	Val	Phe	Ser	Ala	Phe	Ile	Thr
1205							1210							1215	

Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520

Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535

 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550

 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565

 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580

 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600

 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615

 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630

 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645

 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660

 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680

 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695

 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710

 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725

 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740

 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 7
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 7
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
 1 5 10 15

Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu

20	25	30
Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu		
35	40	45
Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys		
50	55	60
Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu		
65	70	75
Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu		
85	90	95
Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val		
100	105	110
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys		
115	120	125
Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val		
130	135	140
Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val		
145	150	155
160		
Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys		
165	170	175
Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp		
180	185	190
Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe		
195	200	205
Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu		
210	215	220
Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr		
225	230	235
240		
Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His		
245	250	255
Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe		
260	265	270
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys		
275	280	285
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly		
290	295	300
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile		
305	310	315
320		
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr		

325	330	335
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr		
340	345	350
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser		
355	360	365
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys		
370	375	380
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr		
385	390	395
400		
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala		
405	410	415
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly		
420	425	430
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro Arg Leu Leu		
435	440	445
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr		
450	455	460
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu		
465	470	475
480		
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr		
485	490	495
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln		
500	505	510
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp		
515	520	525
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr		
530	535	540
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala		
545	550	555
560		
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val		
565	570	575
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro		
580	585	590
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile		
595	600	605
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val		
610	615	620
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr		

625	630	635	640
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met			
645	650	655	
Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met			
660	665	670	
Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu			
675	680	685	
Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser			
690	695	700	
Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro			
705	710	715	720
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile			
725	730	735	
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His			
740	745	750	
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys			
755	760	765	
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile			
770	775	780	
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro			
785	790	795	800
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys			
805	810	815	
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys			
820	825	830	
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His			
835	840	845	
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr			
850	855	860	
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys			
865	870	875	880
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn			
885	890	895	
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys			
900	905	910	
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val			
915	920	925	
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu			

930	935	940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp		
945	950	955
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp		
965	970	975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu		
980	985	990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg		
995	1000	1005
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr		
1010	1015	1020
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys		
1025	1030	1035
1040		
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys		
1045	1050	1055
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile		
1060	1065	1070
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val		
1075	1080	1085
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr		
1090	1095	1100
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr		
1105	1110	1115
1120		
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu		
1125	1130	1135
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Val Pro Ala		
1140	1145	1150
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu		
1155	1160	1165
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile		
1170	1175	1180
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln		
1185	1190	1195
1200		
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr		
1205	1210	1215
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser		
1220	1225	1230
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala		

1235	1240	1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu		
1250	1255	1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg		
1265	1270	1275
1280		
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu		
1285	1290	1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg		
1300	1305	1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu		
1315	1320	1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
1330	1335	1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
1345	1350	1355
1360		
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
1365	1370	1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
1380	1385	1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		
1395	1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
1410	1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430	1435
1440		
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
1445	1450	1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		
1460	1465	1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		
1475	1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His		
1490	1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln		
1505	1510	1515
1520		
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser		
1525	1530	1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His		

1540	1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		
1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
1605	1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		
1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser		
1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	
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<212> PRT		
<213> Homo sapiens		
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Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser		
1	5	10
15		
Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu		
20	25	30
Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu		
35	40	45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
 50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
 65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
 100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
 115 120 125

Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
 130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
 145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
 165 170 175

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
 180 185 190

Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
 195 200 205

Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220

Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240

Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255

Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270

Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285

Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300

Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320

Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335

Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350

Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365

 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380

 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400

 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415

 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430

 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445

 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460

 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480

 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495

 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510

 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525

 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540

 Leu Phe Thr Cys Glu Ile Glu Met Ile Leu His Val Val Ser Thr Ala
 545 550 555 560

 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575

 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590

 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605

 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620

 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640

 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655

Ile Ser Ala Glu Gly Met Asn Ala Gly	Gly Tyr Gly Asn Leu	Leu Met	
660	665	670	
Asn Ser Glu Gln Pro Gln Gly	Glu Tyr Gly Val Thr Ile Ala	Phe Leu	
675	680	685	
Arg Leu Ile Thr Thr Leu Val Lys Gly	Gln Leu Gly Ser Thr Gln	Ser	
690	695	700	
Gln Gly Leu Val Pro Cys Val Met Phe	Val Leu Lys Glu Met Leu	Pro	
705	710	715	720
Ser Tyr His Lys Trp Arg Tyr Asn Ser His	Gly Val Arg Glu Gln	Ile	
725	730	735	
Gly Cys Leu Ile Leu Glu Leu Ile His	Ala Ile Leu Asn Leu Cys	His	
740	745	750	
Glu Thr Asp Leu His Ser Ser His Thr	Pro Ser Leu Gln Phe Leu	Cys	
755	760	765	
Ile Cys Ser Leu Ala Tyr Thr Glu Ala	Gly Gln Thr Val Ile Asn	Ile	
770	775	780	
Met Gly Ile Gly Val Asp Thr Ile Asp	Met Val Met Ala Ala	Gln Pro	
785	790	795	800
Arg Ser Asp Gly Ala Glu Gly Gln	Gly Gln Gly Gln Leu	Leu Ile Lys	
805	810	815	
Thr Val Lys Leu Ala Phe Ser Val	Thr Asn Asn Val Ile Arg	Leu Lys	
820	825	830	
Pro Pro Ser Asn Val Val Ser Pro	Leu Glu Gln Ala Leu Ser	Gln His	
835	840	845	
Gly Ala His Gly Asn Asn Leu Ile	Ala Val Leu Ala Lys Tyr	Ile Tyr	
850	855	860	
His Lys His Asp Pro Ala Leu Pro	Arg Leu Ala Ile Gln Leu	Leu Lys	
865	870	875	880
Arg Leu Ala Thr Val Ala Pro Met	Ser Val Tyr Ala Cys	Leu Gly Asn	
885	890	895	
Asp Ala Ala Ala Ile Arg Asp Ala	Phe Leu Thr Arg Leu	Gln Ser Lys	
900	905	910	
Ile Glu Asp Met Arg Ile Lys Val	Met Ile Leu Glu Phe	Leu Thr Val	
915	920	925	
Ala Val Glu Thr Gln Pro Gly	Leu Ile Glu Leu Phe	Leu Asn Leu Glu	
930	935	940	
Val Lys Asp Gly Ser Asp Gly	Ser Lys Glu Phe Ser	Leu Gly Met Trp	
945	950	955	960

Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Val Pro Ala
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260

Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280

 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295

 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310

 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325

 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340

 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360

 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375

 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390

 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405

 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420

 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440

 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455

 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470

 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485

 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500

 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520

 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535

 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550

 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565

Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
1570 1575 1580

Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
1585 1590 1595 1600

Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
1605 1610 1615

Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
1620 1625 1630

Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
1635 1640 1645

Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
1650 1655 1660

Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
1665 1670 1675 1680

Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
1685 1690 1695

Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
1700 1705 1710

Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
1715 1720 1725

Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
1745 1750

<210> 9
<211> 1753
<212> PRT
<213> Homo sapiens

<400> 9
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
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Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ala Glu Lys
50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95

 Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
 100 105 110

 Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
 115 120 125

 Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
 130 135 140

 Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
 145 150 155 160

 Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
 165 170 175

 Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
 180 185 190

 Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
 195 200 205

 Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220

 Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240

 Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255

 Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270

 Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285

 Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300

 Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320

 Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335

 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350

 Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365

 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380

Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400

 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415

 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430

 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445

 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460

 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480

 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495

 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510

 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525

 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540

 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560

 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575

 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590

 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605

 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620

 Leu Ala Ala Arg Asn Pro Ala Lys Val Phe Thr Asp Leu Arg His Thr
 625 630 635 640

 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655

 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670

 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685

Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735
 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990

His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295

Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600

Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
1605 1610 1615

Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
1620 1625 1630

Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
1635 1640 1645

Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
1650 1655 1660

Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
1665 1670 1675 1680

Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
1685 1690 1695

Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
1700 1705 1710

Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
1715 1720 1725

Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
1745 1750

<210> 10
<211> 1753
<212> PRT
<213> Homo sapiens

<400> 10
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
1 5 10 15

Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val

100	105	110
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys		
115	120	125
Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val		
130	135	140
Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val		
145	150	155
Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys		
165	170	175
Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp		
180	185	190
Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe		
195	200	205
Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu		
210	215	220
Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr		
225	230	235
240		
Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His		
245	250	255
Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe		
260	265	270
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys		
275	280	285
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly		
290	295	300
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile		
305	310	315
320		
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr		
325	330	335
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr		
340	345	350
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser		
355	360	365
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys		
370	375	380
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr		
385	390	395
400		
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala		

405	410	415
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly		
420	425	430
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu		
435	440	445
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr		
450	455	460
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu		
465	470	475
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr		
485	490	495
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln		
500	505	510
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp		
515	520	525
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr		
530	535	540
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala		
545	550	555
560		
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val		
565	570	575
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro		
580	585	590
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile		
595	600	605
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val		
610	615	620
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr		
625	630	635
640		
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met		
645	650	655
Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met		
660	665	670
Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu		
675	680	685
Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser		
690	695	700
Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro		

705	710	715	720
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile			
725		730	735
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asp Leu Cys His			
740		745	750
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys			
755		760	765
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile			
770		775	780
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro			
785	790	795	800
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys			
805		810	815
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys			
820		825	830
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His			
835		840	845
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr			
850		855	860
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys			
865	870	875	880
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn			
885		890	895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys			
900		905	910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val			
915		920	925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu			
930		935	940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp			
945	950	955	960
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp			
965		970	975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu			
980		985	990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg			
995		1000	1005
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr			

1010	1015	1020	
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys			
1025	1030	1035	1040
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys			
1045	1050	1055	
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile			
1060	1065	1070	
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val			
1075	1080	1085	
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr			
1090	1095	1100	
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr			
1105	1110	1115	1120
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu			
1125	1130	1135	
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala			
1140	1145	1150	
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu			
1155	1160	1165	
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile			
1170	1175	1180	
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln			
1185	1190	1195	1200
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr			
1205	1210	1215	
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser			
1220	1225	1230	
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Val Ile Ala			
1235	1240	1245	
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu			
1250	1255	1260	
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg			
1265	1270	1275	1280
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu			
1285	1290	1295	
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg			
1300	1305	1310	
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu			

1315	1320	1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
1330	1335	1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
1345	1350	1355
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
1365	1370	1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
1380	1385	1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		
1395	1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
1410	1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430	1435
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
1445	1450	1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		
1460	1465	1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		
1475	1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His		
1490	1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln		
1505	1510	1515
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser		
1525	1530	1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His		
1540	1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		
1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
1605	1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		

1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser		
1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	
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<211> 1753		
<212> PRT		
<213> Homo sapiens		
<400> 11		
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser		
1	5	10
		15
Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu		
20	25	30
Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu		
35	40	45
Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys		
50	55	60
Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu		
65	70	75
		80
Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu		
85	90	95
Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val		
100	105	110
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys		
115	120	125

Ile	Ala	Asp	Tyr	Tyr	Tyr	Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val
130						135					140				
Leu	His	Leu	Leu	Thr	Tyr	Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val
145						150					155				160
Glu	Tyr	Ala	Asp	Cys	Val	Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys
						165					170				175
Tyr	Arg	Gln	Gln	Phe	Glu	Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp
						180					185				190
Glu	Thr	His	Gly	Asn	Leu	Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe
						195					200				205
Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu
						210					215				220
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr
225						230					235				240
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His
						245					250				255
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe
						260					265				270
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys
						275					280				285
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly
						290					295				300
Leu	Ile	Cys	Gln	Asp	Met	Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile
305						310					315				320
Pro	His	His	Ala	Pro	Val	Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr
						325					330				335
Leu	Asn	Pro	Glu	Glu	Thr	Ser	Ser	Val	Val	Arg	Lys	Ile	Gly	Gly	Thr
						340					345				350
Ala	Ile	Gln	Leu	Asn	Val	Phe	Gln	Tyr	Leu	Thr	Arg	Leu	Leu	Gln	Ser
						355					360				365
Leu	Ala	Ser	Gly	Gly	Asn	Asp	Cys	Thr	Thr	Ser	Thr	Ala	Cys	Met	Cys
						370					375				380
Val	Tyr	Gly	Leu	Leu	Ser	Phe	Val	Leu	Thr	Ser	Leu	Glu	Leu	His	Thr
385						390					395				400
Leu	Gly	Asn	Gln	Gln	Asp	Ile	Ile	Asp	Thr	Ala	Cys	Glu	Val	Leu	Ala
						405					410				415
Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe	Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly
						420					425				430

Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445
 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460
 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480
 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495
 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510
 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525
 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540
 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560
 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575
 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590
 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605
 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620
 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640
 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655
 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670
 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685
 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735

Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Met Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040

Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055

 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070

 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085

 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100

 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120

 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135

 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150

 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165

 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180

 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200

 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215

 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230

 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Val Ile Ala
 1235 1240 1245

 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260

 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280

 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295

 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310

 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325

 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340

Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645

Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725
 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740
 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 12
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 12
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
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 Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
 20 25 30
 Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
 35 40 45
 Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ala Glu Lys
 50 55 60
 Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
 65 70 75 80
 Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95
 Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
 100 105 110
 Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
 115 120 125
 Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
 130 135 140
 Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
 145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
 165 170 175

 Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
 180 185 190

 Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
 195 200 205

 Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220

 Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240

 Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255

 Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270

 Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285

 Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300

 Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320

 Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335

 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350

 Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365

 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380

 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400

 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415

 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430

 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445

 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460

Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480

 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495

 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510

 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525

 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540

 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560

 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575

 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590

 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605

 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620

 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640

 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655

 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670

 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685

 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700

 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720

 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735

 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750

 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765

Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Thr Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070

Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375

Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680

Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
1685 1690 1695

Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
1700 1705 1710

Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
1715 1720 1725

Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
1745 1750

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<212> PRT
<213> Homo sapiens

<400> 13
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
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20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
115 120 125

Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
165 170 175

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp

180	185	190
Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe		
195	200	205
Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu		
210	215	220
Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr		
225	230	235
Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His		
245	250	255
Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe		
260	265	270
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys		
275	280	285
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly		
290	295	300
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile		
305	310	315
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr		
325	330	335
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr		
340	345	350
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser		
355	360	365
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys		
370	375	380
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr		
385	390	395
400		
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala		
405	410	415
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly		
420	425	430
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu		
435	440	445
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr		
450	455	460
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu		
465	470	475
480		
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr		

485	490	495
Leu Trp Arg Arg Gln Thr Pro Lys Leu	Leu Tyr Pro Leu Gly Gly Gln	
500	505	510
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp		
515	520	525
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr		
530	535	540
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala		
545	550	555
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val		
565	570	575
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro		
580	585	590
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile		
595	600	605
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val		
610	615	620
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr		
625	630	635
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met		
645	650	655
Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met		
660	665	670
Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu		
675	680	685
Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser		
690	695	700
Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro		
705	710	715
720		
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile		
725	730	735
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His		
740	745	750
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys		
755	760	765
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile		
770	775	780
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro		

785	790	795	800
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys			
805		810	815
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys			
820		825	830
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His			
835		840	845
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr			
850	855	860	
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys			
865	870	875	880
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn			
885		890	895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys			
900		905	910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val			
915		920	925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu			
930		935	940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp			
945	950	955	960
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Asp			
965		970	975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu			
980		985	990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg			
995		1000	1005
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr			
1010		1015	1020
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys			
1025	1030	1035	1040
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys			
1045		1050	1055
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile			
1060		1065	1070
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Arg Ser Leu Ala Val			
1075		1080	1085
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr			

1090	1095	1100
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr		
1105	1110	1115
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu		
1125	1130	1135
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala		
1140	1145	1150
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu		
1155	1160	1165
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile		
1170	1175	1180
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln		
1185	1190	1195
1200		
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr		
1205	1210	1215
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser		
1220	1225	1230
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Val Ile Ala		
1235	1240	1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu		
1250	1255	1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg		
1265	1270	1275
1280		
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu		
1285	1290	1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg		
1300	1305	1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu		
1315	1320	1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
1330	1335	1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
1345	1350	1355
1360		
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
1365	1370	1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
1380	1385	1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		

1395	1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
1410	1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430	1435
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
1445	1450	1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		
1460	1465	1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		
1475	1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His		
1490	1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln		
1505	1510	1515
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser		
1525	1530	1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His		
1540	1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		
1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
1605	1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys		
1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser		

1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	
<210> 14		
<211> 1753		
<212> PRT		
<213> Homo sapiens		
<400> 14		
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser		
1	5	10
15		
Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu		
20	25	30
Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu		
35	40	45
Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys		
50	55	60
Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu		
65	70	75
80		
Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu		
85	90	95
Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val		
100	105	110
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys		
115	120	125
Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val		
130	135	140
Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val		
145	150	155
160		
Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys		
165	170	175
Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp		
180	185	190
Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe		
195	200	205

Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220

Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240

Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255

Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270

Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285

Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300

Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320

Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335

Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350

Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365

Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380

Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400

Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415

Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430

Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445

Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460

Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480

Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495

Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510

Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525
 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540
 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560
 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575
 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590
 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605
 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620
 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640
 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655
 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670
 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685
 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735
 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815

Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830

Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845

Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860

His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880

Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895

Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910

Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925

Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940

Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960

Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975

Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990

His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005

Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020

Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040

Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055

Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070

Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085

His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100

Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120

His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
1125 1130 1135

Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser
1140 1145 1150

Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
1155 1160 1165

Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
1170 1175 1180

Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
1185 1190 1195 1200

Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
1205 1210 1215

Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
1220 1225 1230

Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Val Ile Ala
1235 1240 1245

Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
1250 1255 1260

Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
1265 1270 1275 1280

Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
1285 1290 1295

Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
1300 1305 1310

Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
1315 1320 1325

Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
1330 1335 1340

Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
1345 1350 1355 1360

Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
1365 1370 1375

Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
1380 1385 1390

Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
1395 1400 1405

Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
1410 1415 1420

Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725

Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
1745 1750

<210> 15
<211> 1753
<212> PRT
<213> Homo sapiens

<400> 15
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
1 5 10 15

Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
115 120 125

Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
165 170 175

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
180 185 190

Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
195 200 205

Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
210 215 220

Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
225 230 235 240

Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
245 250 255

Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
260 265 270

Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
275 280 285

Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
290 295 300

Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
305 310 315 320

Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
325 330 335

Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
340 345 350

Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
355 360 365

Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
370 375 380

Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
385 390 395 400

Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
405 410 415

Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
420 425 430

Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
435 440 445

Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
450 455 460

Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
465 470 475 480

Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
485 490 495

Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
500 505 510

Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
515 520 525

Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
530 535 540

Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560

 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575

 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590

 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605

 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620

 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640

 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655

 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670

 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685

 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700

 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720

 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735

 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750

 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765

 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780

 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800

 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815

 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830

 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845

Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser
 1140 1145 1150

Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Val Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455

Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470

 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485

 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500

 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520

 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535

 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550

 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565

 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580

 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600

 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615

 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630

 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645

 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660

 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680

 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695

 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710

 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725

 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740

 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 16
<211> 1753
<212> PRT
<213> Homo sapiens

<400> 16
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
1 5 10 15

Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
115 120 125

Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
165 170 175

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
180 185 190

Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
195 200 205

Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
210 215 220

Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
225 230 235 240

Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
245 250 255

Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe

260	265	270
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys		
275	280	285
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly		
290	295	300
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile		
305	310	315
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr		
325	330	335
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr		
340	345	350
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser		
355	360	365
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys		
370	375	380
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr		
385	390	395
400		
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala		
405	410	415
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly		
420	425	430
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu		
435	440	445
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr		
450	455	460
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu		
465	470	475
480		
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr		
485	490	495
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln		
500	505	510
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp		
515	520	525
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr		
530	535	540
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala		
545	550	555
560		
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val		

565	570	575
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro		
580	585	590
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile		
595	600	605
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val		
610	615	620
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr		
625	630	635
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met		
645	650	655
Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met		
660	665	670
Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu		
675	680	685
Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser		
690	695	700
Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro		
705	710	715
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile		
725	730	735
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His		
740	745	750
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys		
755	760	765
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile		
770	775	780
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro		
785	790	795
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys		
805	810	815
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys		
820	825	830
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His		
835	840	845
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr		
850	855	860
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys		

865	870	875	880
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn			
885	890	895	
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys			
900	905	910	
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val			
915	920	925	
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu			
930	935	940	
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp			
945	950	955	960
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Asp			
965	970	975	
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu			
980	985	990	
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg			
995	1000	1005	
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr			
1010	1015	1020	
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys			
1025	1030	1035	1040
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys			
1045	1050	1055	
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile			
1060	1065	1070	
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val			
1075	1080	1085	
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr			
1090	1095	1100	
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr			
1105	1110	1115	1120
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu			
1125	1130	1135	
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser			
1140	1145	1150	
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu			
1155	1160	1165	
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile			

1170	1175	1180
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln		
1185	1190	1195
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr		
1205	1210	1215
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser		
1220	1225	1230
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala		
1235	1240	1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu		
1250	1255	1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg		
1265	1270	1275
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu		
1285	1290	1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg		
1300	1305	1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu		
1315	1320	1325
Arg Met Arg Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
1330	1335	1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
1345	1350	1355
1360		
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
1365	1370	1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
1380	1385	1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		
1395	1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
1410	1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430	1435
1440		
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
1445	1450	1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		
1460	1465	1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		

1475	1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His 1490	1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln 1505	1510	1515
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser 1525	1530	1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His 1540	1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala 1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser 1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr 1585	1590	1595
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala 1605	1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys 1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr 1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr 1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His 1665	1670	1675
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser 1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser 1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser 1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val 1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg 1745	1750	

<210> 17
<211> 1753
<212> PRT

<213> Homo sapiens

<400> 17

Met	Ile	Arg	Lys	Ser	Lys	Ile	Thr	Ser	Val	Leu	Ser	Phe	Cys	Arg	Ser
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Ser	Arg	Glu	Leu	Trp	Thr	Ile	Leu	Leu	Gly	Arg	Ser	Ala	Leu	Arg	Glu
		20					25						30		
Leu	Ser	Gln	Ile	Glu	Ala	Glu	Leu	Asn	Lys	His	Trp	Arg	Arg	Leu	Leu
		35				40						45			
Glu	Gly	Leu	Ser	Tyr	Tyr	Lys	Pro	Pro	Ser	Pro	Ser	Ser	Ala	Glu	Lys
	50				55						60				
Val	Lys	Ala	Asn	Lys	Asp	Val	Ala	Ser	Pro	Leu	Lys	Glu	Leu	Gly	Leu
	65					70				75			80		
Arg	Ile	Ser	Lys	Phe	Leu	Gly	Leu	Asp	Glu	Glu	Gln	Ser	Val	Gln	Leu
		85					90					95			
Leu	Gln	Cys	Tyr	Leu	Gln	Glu	Asp	Tyr	Arg	Gly	Thr	Arg	Asp	Ser	Val
		100				105					110				
Lys	Thr	Val	Leu	Gln	Asp	Glu	Arg	Gln	Ser	Gln	Ala	Leu	Ile	Leu	Lys
		115				120					125				
Ile	Ala	Asp	Tyr	Tyr	Tyr	Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val
	130				135					140					
Leu	His	Leu	Leu	Thr	Tyr	Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val
	145					150				155			160		
Glu	Tyr	Ala	Asp	Cys	Val	Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys
		165				170					175				
Tyr	Arg	Gln	Gln	Phe	Glu	Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp
		180				185					190				
Glu	Thr	His	Gly	Asn	Leu	Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe
		195				200					205				
Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu
		210				215					220				
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr
	225				230					235			240		
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His
		245				250					255				
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe
		260				265					270				
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys
		275				280					285				

Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300
 Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320
 Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335
 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350
 Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365
 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380
 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400
 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415
 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430
 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445
 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460
 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480
 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495
 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510
 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525
 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540
 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560
 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575
 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590

Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605

 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620

 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640

 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655

 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670

 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685

 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700

 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720

 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735

 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750

 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765

 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780

 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800

 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815

 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830

 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845

 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860

 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880

 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895

Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910

Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925

Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940

Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960

Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975

Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990

His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005

Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020

Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040

Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055

Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070

Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085

His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100

Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120

His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135

Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Val Pro Ser
 1140 1145 1150

Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165

Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180

Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200

Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
1205 1210 1215

Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
1220 1225 1230

Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
1235 1240 1245

Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
1250 1255 1260

Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
1265 1270 1275 1280

Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
1285 1290 1295

Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
1300 1305 1310

Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
1315 1320 1325

Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
1330 1335 1340

Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
1345 1350 1355 1360

Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
1365 1370 1375

Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
1380 1385 1390

Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
1395 1400 1405

Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
1410 1415 1420

Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
1425 1430 1435 1440

Val Arg Thr Val Gln Ser Leu Ala Tyr Leu Glu Glu Ala Asp His Thr
1445 1450 1455

Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
1460 1465 1470

His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
1475 1480 1485

Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
1490 1495 1500

Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
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 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
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 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

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 20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
 35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
 50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
 65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
 100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
 115 120 125

Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
 130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
 145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
 165 170 175

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
 180 185 190

Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
 195 200 205

Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220

Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240

Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255

Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270

Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285

Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300

Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320

Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335

 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350

 Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365

 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380

 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400

 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415

 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430

 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445

 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460

 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480

 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495

 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510

 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525

 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540

 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560

 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575

 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590

 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605

 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620

Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
625 630 635 640

Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
645 650 655

Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
660 665 670

Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
675 680 685

Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
690 695 700

Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
705 710 715 720

Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
725 730 735

Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
740 745 750

Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
755 760 765

Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
770 775 780

Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
785 790 795 800

Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys
805 810 815

Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
820 825 830

Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
835 840 845

Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
850 855 860

His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
865 870 875 880

Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
885 890 895

Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
900 905 910

Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
915 920 925

Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940

Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp.
 945 950 955 960

Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Asp
 965 970 975

Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990

His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005

Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020

Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040

Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055

Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070

Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085

His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100

Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120

His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135

Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser
 1140 1145 1150

Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165

Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180

Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200

Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215

Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230

Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
1235 1240 1245

Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
1250 1255 1260

Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
1265 1270 1275 1280

Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
1285 1290 1295

Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
1300 1305 1310

Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
1315 1320 1325

Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
1330 1335 1340

Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
1345 1350 1355 1360

Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
1365 1370 1375

Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
1380 1385 1390

Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
1395 1400 1405

Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
1410 1415 1420

Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
1425 1430 1435 1440

Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
1445 1450 1455

Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
1460 1465 1470

His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
1475 1480 1485

Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
1490 1495 1500

Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
1505 1510 1515 1520

Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
1525 1530 1535

Lys Gln Pro Ala Ala Gln Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725
 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740
 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

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 <212> PRT
 <213> Homo sapiens

<400> 19
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 Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
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 Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu

35	40	45													
Glu	Gly	Leu	Ser	Tyr	Tyr	Lys	Pro	Pro	Ser	Pro	Ser	Ser	Ala	Glu	Lys
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Val	Lys	Ala	Asn	Lys	Asp	Val	Ala	Ser	Pro	Leu	Lys	Glu	Leu	Gly	Leu
65							70			75			80		
Arg	Ile	Ser	Lys	Phe	Leu	Gly	Leu	Asp	Glu	Glu	Gln	Ser	Val	Gln	Leu
							85		90			95			
Leu	Gln	Cys	Tyr	Leu	Gln	Glu	Asp	Tyr	Arg	Gly	Thr	Arg	Asp	Ser	Val
							100		105			110			
Lys	Thr	Val	Leu	Gln	Asp	Glu	Arg	Gln	Ser	Gln	Ala	Leu	Ile	Leu	Lys
							115		120			125			
Ile	Ala	Asp	Tyr	Tyr	Tyr	Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val
							130		135			140			
Leu	His	Leu	Leu	Thr	Tyr	Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val
							145		150			155			160
Glu	Tyr	Ala	Asp	Cys	Val	Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys
							165		170			175			
Tyr	Arg	Gln	Gln	Phe	Glu	Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp
							180		185			190			
Glu	Thr	His	Gly	Asn	Leu	Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe
							195		200			205			
Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu
							210		215			220			
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr
							225		230			235			240
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His
							245		250			255			
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe
							260		265			270			
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys
							275		280			285			
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly
							290		295			300			
Leu	Ile	Cys	Gln	Asp	Met	Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile
							305		310			315			320
Pro	His	His	Ala	Pro	Val	Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr
							325		330			335			
Leu	Asn	Pro	Glu	Glu	Thr	Ser	Ser	Val	Val	Arg	Lys	Ile	Gly	Gly	Thr

340	345	350	
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser			
355	360	365	
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys			
370	375	380	
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr			
385	390	395	400
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala			
405	410	415	
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly			
420	425	430	
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu			
435	440	445	
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr			
450	455	460	
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu			
465	470	475	480
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr			
485	490	495	
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln			
500	505	510	
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp			
515	520	525	
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr			
530	535	540	
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala			
545	550	555	560
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val			
565	570	575	
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro			
580	585	590	
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile			
595	600	605	
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val			
610	615	620	
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr			
625	630	635	640
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met			

645	650	655
Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met		
660	665	670
Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu		
675	680	685
Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser		
690	695	700
Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro		
705	710	715
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile		
725	730	735
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His		
740	745	750
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys		
755	760	765
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile		
770	775	780
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro		
785	790	795
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile Lys		
805	810	815
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys		
820	825	830
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His		
835	840	845
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr		
850	855	860
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys		
865	870	875
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn		
885	890	895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys		
900	905	910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val		
915	920	925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu		
930	935	940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp		

945	950	955	960
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp			
965		970	975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu			
980	985		990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg			
995	1000	1005	
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr			
1010	1015	1020	
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys			
1025	1030	1035	1040
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys			
1045	1050		1055
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile			
1060	1065		1070
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val			
1075	1080		1085
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr			
1090	1095	1100	
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr			
1105	1110	1115	1120
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu			
1125	1130		1135
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser			
1140	1145		1150
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu			
1155	1160	1165	
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile			
1170	1175	1180	
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln			
1185	1190	1195	1200
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr			
1205	1210		1215
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser			
1220	1225	1230	
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala			
1235	1240	1245	
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu			

1250	1255	1260	
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg			
1265	1270	1275	1280
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu			
1285	1290	1295	
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg			
1300	1305	1310	
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu			
1315	1320	1325	
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu			
1330	1335	1340	
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala			
1345	1350	1355	1360
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu			
1365	1370	1375	
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu			
1380	1385	1390	
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met			
1395	1400	1405	
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu			
1410	1415	1420	
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala			
1425	1430	1435	1440
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr			
1445	1450	1455	
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe			
1460	1465	1470	
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu			
1475	1480	1485	
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His			
1490	1495	1500	
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln			
1505	1510	1515	1520
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser			
1525	1530	1535	
Lys Gln Pro Ala Ala Gln Thr Glu Ala Ser Glu Gln Gln Ala Leu His			
1540	1545	1550	
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala			

1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
1605	1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		
1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr His Arg Arg Gly Ala Pro Ser		
1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	

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 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 20
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys
 1 5 10

<210> 21
 <211> 1745
 <212> PRT
 <213> Homo sapiens

<400> 21
 Ala Gly Gly Pro Cys Val Arg Ser Ser Arg Glu Leu Trp Thr Ile Leu
 1 5 10 15

Leu Gly Arg Ser Ala Leu Arg Glu Leu Ser Gln Ile Glu Ala Glu Leu
 20 25 30

Asn Lys His Trp Arg Arg Leu Leu Glu Gly Leu Ser Tyr Tyr Lys Pro
 35 40 45

Pro Ser Pro Ser Ser Ala Glu Lys Val Lys Ala Asn Lys Asp Val Ala
 50 55 60

Ser Pro Leu Lys Glu Leu Gly Leu Arg Ile Ser Lys Phe Leu Gly Leu
 65 70 75 80

Asp Glu Glu Gln Ser Val Gln Leu Leu Gln Cys Tyr Leu Gln Glu Asp
 85 90 95

Tyr Arg Gly Thr Arg Asp Ser Val Lys Thr Val Leu Gln Asp Glu Arg
 100 105 110

Gln Ser Gln Ala Leu Ile Leu Lys Ile Ala Asp Tyr Tyr Tyr Glu Glu
 115 120 125

Arg Thr Cys Ile Leu Arg Cys Val Leu His Leu Leu Thr Tyr Phe Gln
 130 135 140

Asp Glu Arg His Pro Tyr Arg Val Glu Tyr Ala Asp Cys Val Asp Lys
 145 150 155 160

Leu Glu Lys Glu Leu Val Ser Lys Tyr Arg Gln Gln Phe Glu Glu Leu
 165 170 175

Tyr Lys Thr Glu Ala Pro Thr Trp Glu Thr His Gly Asn Leu Met Thr
 180 185 190

Glu Arg Gln Val Ser Arg Trp Phe Val Gln Cys Leu Arg Glu Gln Ser
 195 200 205

Met Leu Leu Glu Ile Ile Phe Leu Tyr Tyr Ala Tyr Phe Glu Met Ala
 210 215 220

Pro Ser Asp Leu Leu Val Leu Thr Lys Met Phe Lys Glu Gln Gly Phe
 225 230 235 240

Gly Ser Arg Gln Thr Asn Arg His Leu Val Asp Glu Thr Met Asp Pro
 245 250 255

Phe Val Asp Arg Ile Gly Tyr Phe Ser Ala Leu Ile Leu Val Glu Gly
 260 265 270

Met Asp Ile Glu Ser Leu His Lys Cys Ala Leu Asp Asp Arg Arg Glu
 275 280 285

Leu His Gln Phe Ala Gln Asp Gly Leu Ile Cys Gln Asp Met Asp Cys
 290 295 300

Leu Met Leu Thr Phe Gly Asp Ile Pro His His Ala Pro Val Leu Leu
 305 310 315 320

Ala Trp Ala Leu Leu Arg His Thr Leu Asn Pro Glu Glu Thr Ser Ser
 325 330 335

 Val Val Arg Lys Ile Gly Gly Thr Ala Ile Gln Leu Asn Val Phe Gln
 340 345 350

 Tyr Leu Thr Arg Leu Leu Gln Ser Leu Ala Ser Gly Gly Asn Asp Cys
 355 360 365

 Thr Thr Ser Thr Ala Cys Met Cys Val Tyr Gly Leu Leu Ser Phe Val
 370 375 380

 Leu Thr Ser Leu Glu Leu His Thr Leu Gly Asn Gln Gln Asp Ile Ile
 385 390 395 400

 Asp Thr Ala Cys Glu Val Leu Ala Asp Pro Ser Leu Pro Glu Leu Phe
 405 410 415

 Trp Gly Thr Glu Pro Thr Ser Gly Leu Gly Ile Ile Leu Asp Ser Val
 420 425 430

 Cys Gly Met Phe Pro His Leu Leu Ser Pro Leu Leu Gln Leu Leu Arg
 435 440 445

 Ala Leu Val Ser Gly Lys Ser Thr Ala Lys Lys Val Tyr Ser Phe Leu
 450 455 460

 Asp Lys Met Ser Phe Tyr Asn Glu Leu Tyr Lys His Lys Pro His Asp
 465 470 475 480

 Val Ile Ser His Glu Asp Gly Thr Leu Trp Arg Arg Gln Thr Pro Lys
 485 490 495

 Leu Leu Tyr Pro Leu Gly Gly Gln Thr Asn Leu Arg Ile Pro Gln Gly
 500 505 510

 Thr Val Gly Gln Val Met Leu Asp Asp Arg Ala Tyr Leu Val Arg Trp
 515 520 525

 Glu Tyr Ser Tyr Ser Ser Trp Thr Leu Phe Thr Cys Glu Ile Glu Met
 530 535 540

 Leu Leu His Val Val Ser Thr Ala Asp Val Ile Gln His Cys Gln Arg
 545 550 555 560

 Val Lys Pro Ile Ile Asp Leu Val His Lys Val Ile Ser Thr Asp Leu
 565 570 575

 Ser Ile Ala Asp Cys Leu Leu Pro Ile Thr Ser Arg Ile Tyr Met Leu
 580 585 590

 Leu Gln Arg Leu Thr Thr Val Ile Ser Pro Pro Val Asp Val Ile Ala
 595 600 605

 Ser Cys Val Asn Cys Leu Thr Val Leu Ala Ala Arg Asn Pro Ala Lys
 610 615 620

Val Trp Thr Asp Leu Arg His Thr Gly Phe Leu Pro Phe Val Ala His
 625 630 635 640

 Pro Val Ser Ser Leu Ser Gln Met Ile Ser Ala Glu Gly Met Asn Ala
 645 650 655

 Gly Gly Tyr Gly Asn Leu Leu Met Asn Ser Glu Gln Pro Gln Gly Glu
 660 665 670

 Tyr Gly Val Thr Ile Ala Phe Leu Arg Leu Ile Thr Thr Leu Val Lys
 675 680 685

 Gly Gln Leu Gly Ser Thr Gln Ser Gln Gly Leu Val Pro Cys Val Met
 690 695 700

 Phe Val Leu Lys Glu Met Leu Pro Ser Tyr His Lys Trp Arg Tyr Asn
 705 710 715 720

 Ser His Gly Val Arg Glu Gln Ile Gly Cys Leu Ile Leu Glu Leu Ile
 725 730 735

 His Ala Ile Leu Asn Leu Cys His Glu Thr Asp Leu His Ser Ser His
 740 745 750

 Thr Pro Ser Leu Gln Phe Leu Cys Ile Cys Ser Leu Ala Tyr Thr Glu
 755 760 765

 Ala Gly Gln Thr Val Ile Asn Ile Met Gly Ile Gly Val Asp Thr Ile
 770 775 780

 Asp Met Val Met Ala Ala Gln Pro Arg Ser Asp Gly Ala Glu Gly Gln
 785 790 795 800

 Gly Gln Gly Gln Leu Leu Ile Lys Thr Val Lys Leu Ala Phe Ser Val
 805 810 815

 Thr Asn Asn Val Ile Arg Leu Lys Pro Pro Ser Asn Val Val Ser Pro
 820 825 830

 Leu Glu Gln Ala Leu Ser Gln His Gly Ala His Gly Asn Asn Leu Ile
 835 840 845

 Ala Val Leu Ala Lys Tyr Ile Tyr His Lys His Asp Pro Ala Leu Pro
 850 855 860

 Arg Leu Ala Ile Gln Leu Leu Lys Arg Leu Ala Thr Val Ala Pro Met
 865 870 875 880

 Ser Val Tyr Ala Cys Leu Gly Asn Asp Ala Ala Ala Ile Arg Asp Ala
 885 890 895

 Phe Leu Thr Arg Leu Gln Ser Lys Ile Glu Asp Met Arg Ile Lys Val
 900 905 910

 Met Ile Leu Glu Phe Leu Thr Val Ala Val Glu Thr Gln Pro Gly Leu
 915 920 925

Ile Glu Leu Phe Leu Asn Leu Glu Val Lys Asp Gly Ser Asp Gly Ser
 930 935 940
 Lys Glu Phe Ser Leu Gly Met Trp Ser Cys Leu His Ala Val Leu Glu
 945 950 955 960
 Leu Ile Asp Ser Gln Gln Asp Arg Tyr Trp Cys Pro Pro Leu Leu
 965 970 975
 His Arg Ala Ala Ile Ala Phe Leu His Ala Leu Trp Gln Asp Arg Arg
 980 985 990
 Asp Ser Ala Met Leu Val Leu Arg Thr Lys Pro Lys Phe Trp Glu Asn
 995 1000 1005
 Leu Thr Ser Pro Leu Phe Gly Thr Leu Ser Pro Pro Ser Glu Thr Ser
 1010 1015 1020
 Glu Pro Ser Ile Leu Glu Thr Cys Ala Leu Ile Met Lys Ile Ile Cys
 1025 1030 1035 1040
 Leu Glu Ile Tyr Tyr Val Val Lys Gly Ser Leu Asp Gln Ser Leu Lys
 1045 1050 1055
 Asp Thr Leu Lys Lys Phe Ser Ile Glu Lys Arg Phe Ala Tyr Trp Ser
 1060 1065 1070
 Gly Tyr Val Lys Ser Leu Ala Val His Val Ala Glu Thr Glu Gly Ser
 1075 1080 1085
 Ser Cys Thr Ser Leu Leu Glu Tyr Gln Met Leu Val Ser Ala Trp Arg
 1090 1095 1100
 Met Leu Leu Ile Ile Ala Thr Thr His Ala Asp Ile Met His Leu Thr
 1105 1110 1115 1120
 Asp Ser Val Val Arg Arg Gln Leu Phe Leu Asp Val Leu Asp Gly Thr
 1125 1130 1135
 Lys Ala Leu Leu Leu Val Pro Ala Ser Val Asn Cys Leu Arg Leu Gly
 1140 1145 1150
 Ser Met Lys Cys Thr Leu Leu Ile Leu Leu Arg Gln Trp Lys Arg
 1155 1160 1165
 Glu Leu Gly Ser Val Asp Glu Ile Leu Gly Pro Leu Thr Glu Ile Leu
 1170 1175 1180
 Glu Gly Val Leu Gln Ala Asp Gln Gln Leu Met Glu Lys Thr Lys Ala
 1185 1190 1195 1200
 Lys Val Phe Ser Ala Phe Ile Thr Val Leu Gln Met Lys Glu Met Lys
 1205 1210 1215
 Val Ser Asp Ile Pro Gln Tyr Ser Gln Leu Val Leu Asn Val Cys Glu
 1220 1225 1230

Thr Leu Gln Glu Glu Val Ile Ala Leu Phe Asp Gln Thr Arg His Ser
1235 1240 1245

Leu Ala Leu Gly Ser Ala Thr Glu Asp Lys Asp Ser Met Glu Thr Asp
1250 1255 1260

Asp Cys Ser Arg Ser Arg His Arg Asp Gln Arg Asp Gly Val Cys Val
1265 1270 1275 1280

Leu Gly Leu His Leu Ala Lys Glu Leu Cys Glu Val Asp Glu Asp Gly
1285 1290 1295

Asp Ser Trp Leu Gln Val Thr Arg Arg Leu Pro Ile Leu Pro Thr Leu
1300 1305 1310

Leu Thr Thr Leu Glu Val Ser Leu Arg Met Lys Gln Asn Leu His Phe
1315 1320 1325

Thr Glu Ala Thr Leu His Leu Leu Thr Leu Ala Arg Thr Gln Gln
1330 1335 1340

Gly Ala Thr Ala Val Ala Gly Ala Gly Ile Thr Gln Ser Ile Cys Leu
1345 1350 1355 1360

Pro Leu Leu Ser Val Tyr Gln Leu Ser Thr Asn Gly Thr Ala Gln Thr
1365 1370 1375

Pro Ser Ala Ser Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro Gly Val
1380 1385 1390

Tyr Arg Leu Ser Met Ser Leu Met Glu Gln Leu Leu Lys Thr Leu Arg
1395 1400 1405

Tyr Asn Phe Leu Pro Glu Ala Leu Asp Phe Val Gly Val His Gln Glu
1410 1415 1420

Arg Thr Leu Gln Cys Leu Asn Ala Val Arg Thr Val Gln Ser Leu Ala
1425 1430 1435 1440

Cys Leu Glu Glu Ala Asp His Thr Val Gly Phe Ile Leu Gln Leu Ser
1445 1450 1455

Asn Phe Met Lys Glu Trp His Phe His Leu Pro Gln Leu Met Arg Asp
1460 1465 1470

Ile Gln Val Asn Leu Gly Tyr Leu Cys Gln Ala Cys Thr Ser Leu Leu
1475 1480 1485

His Ser Arg Lys Met Leu Gln His Tyr Leu Gln Asn Lys Asn Gly Asp
1490 1495 1500

Gly Leu Pro Ser Ala Val Ala Gln Arg Val Gln Arg Pro Pro Ser Ala
1505 1510 1515 1520

Ala Ser Ala Ala Pro Ser Ser Ser Lys Gln Pro Ala Ala Asp Thr Glu
1525 1530 1535

Ala Ser Glu Gln Gln Ala Leu His Thr Val Gln Tyr Gly Leu Leu Lys
 1540 1545 1550
 Ile Leu Ser Lys Thr Leu Ala Ala Leu Arg His Phe Thr Pro Asp Val
 1555 1560 1565
 Cys Gln Ile Leu Leu Asp Gln Ser Leu Asp Leu Ala Glu Tyr Asn Phe
 1570 1575 1580
 Leu Phe Ala Leu Ser Phe Thr Thr Pro Thr Phe Asp Ser Glu Val Ala
 1585 1590 1595 1600
 Pro Ser Phe Gly Thr Leu Leu Ala Thr Val Asn Val Ala Leu Asn Met
 1605 1610 1615
 Leu Gly Glu Leu Asp Lys Lys Glu Pro Leu Thr Gln Ala Val Gly
 1620 1625 1630
 Leu Ser Thr Gln Ala Glu Gly Thr Arg Thr Leu Lys Ser Leu Leu Met
 1635 1640 1645
 Phe Thr Met Glu Asn Cys Phe Tyr Leu Leu Ile Ser Gln Ala Met Arg
 1650 1655 1660
 Tyr Leu Arg Asp Pro Ala Val His Pro Arg Asp Lys Gln Arg Met Lys
 1665 1670 1675 1680
 Gln Glu Leu Ser Ser Glu Leu Ser Thr Leu Leu Ser Ser Leu Ser Arg
 1685 1690 1695
 Tyr Phe Arg Arg Gly Ala Pro Ser Ser Pro Ala Thr Gly Val Leu Pro
 1700 1705 1710
 Ser Pro Gln Gly Lys Ser Thr Ser Leu Ser Lys Ala Ser Pro Glu Ser
 1715 1720 1725
 Gln Glu Pro Leu Ile Gln Leu Val Gln Ala Phe Val Arg His Met Gln
 1730 1735 1740
 Arg
 1745

<210> 22
 <211> 3534
 <212> PRT
 <213> Homo sapiens

<400> 22
 Met Ala Ser Gly Gly Val Arg Ala Ser Gly Arg Ala Lys Met Ala
 1 5 10 15
 Ala Ala Ala Gly Gly Pro Cys Val Arg Ser Ser Arg Glu Leu Trp Thr
 20 25 30
 Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu Leu Ser Gln Ile Glu Ala

35	40	45
Glu Leu Asn Lys His Trp Arg Arg	Leu Leu Glu Gly	Leu Ser Tyr Tyr
50	55	60
Lys Pro Pro Ser Pro Ser Ser Ala	Glu Lys Val Lys Ala Asn Lys Asp	
65	70	75 80
Val Ala Ser Pro Leu Lys Glu Leu Gly	Leu Arg Ile Ser Lys Phe Leu	
85	90	95
Gly Leu Asp Glu Glu Gln Ser Val	Gln Leu Leu Gln Cys Tyr	Leu Gln
100	105	110
Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val	Lys Thr Val Leu Gln Asp	
115	120	125
Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys	Ile Ala Asp Tyr Tyr Tyr	
130	135	140
Glu Glu Arg Thr Cys Ile Leu Arg Cys Val	Leu His Leu Leu Thr Tyr	
145	150	155 160
Phe Gln Asp Glu Arg His Pro Tyr Arg Val	Glu Tyr Ala Asp Cys Val	
165	170	175
Asp Lys Leu Glu Lys Glu Leu Val Ser	Lys Tyr Arg Gln Gln Phe Glu	
180	185	190
Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp	Glu Thr His Gly Asn Leu	
195	200	205
Met Thr Glu Arg Gln Val Ser Arg Trp Phe Val	Gln Cys Leu Arg Glu	
210	215	220
Gln Ser Met Leu Leu Glu Ile Ile Phe Leu	Tyr Tyr Ala Tyr Phe Glu	
225	230	235 240
Met Ala Pro Ser Asp Leu Leu Val Leu Thr	Lys Met Phe Lys Glu Gln	
245	250	255
Gly Phe Gly Ser Arg Gln Thr Asn Arg His	Leu Val Asp Glu Thr Met	
260	265	270
Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe Ser	Ala Leu Ile Leu Val	
275	280	285
Glu Gly Met Asp Ile Glu Ser Leu His	Lys Cys Ala Leu Asp Asp Arg	
290	295	300
Arg Glu Leu His Gln Phe Ala Gln Asp Gly	Leu Ile Cys Gln Asp Met	
305	310	315 320
Asp Cys Leu Met Leu Thr Phe Gly Asp Ile	Pro His His Ala Pro Val	
325	330	335
Leu Leu Ala Trp Ala Leu Leu Arg His Thr	Leu Asn Pro Glu Glu Thr	

340	345	350
Ser Ser Val Val Arg Lys Ile Gly Gly Thr Ala Ile Gln Leu Asn Val		
355	360	365
Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser Leu Ala Ser Gly Gly Asn		
370	375	380
Asp Cys Thr Thr Ser Thr Ala Cys Met Cys Val Tyr Gly Leu Leu Ser		
385	390	395
Phe Val Leu Thr Ser Leu Glu Leu His Thr Leu Gly Asn Gln Gln Asp		
405	410	415
Ile Ile Asp Thr Ala Cys Glu Val Leu Ala Asp Pro Ser Leu Pro Glu		
420	425	430
Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly Leu Gly Ile Ile Leu Asp		
435	440	445
Ser Val Cys Gly Met Phe Pro His Leu Leu Ser Pro Leu Leu Gln Leu		
450	455	460
Leu Arg Ala Leu Val Ser Gly Lys Ser Thr Ala Lys Lys Val Tyr Ser		
465	470	475
Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu Leu Tyr Lys His Lys Pro		
485	490	495
His Asp Val Ile Ser His Glu Asp Gly Thr Leu Trp Arg Arg Gln Thr		
500	505	510
Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln Thr Asn Leu Arg Ile Pro		
515	520	525
Gln Gly Thr Val Gly Gln Val Met Leu Asp Asp Arg Ala Tyr Leu Val		
530	535	540
Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr Leu Phe Thr Cys Glu Ile		
545	550	555
560		
Glu Met Leu Leu His Val Val Ser Thr Ala Asp Val Ile Gln His Cys		
565	570	575
Gln Arg Val Lys Pro Ile Ile Asp Leu Val His Lys Val Ile Ser Thr		
580	585	590
Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro Ile Thr Ser Arg Ile Tyr		
595	600	605
Met Leu Leu Gln Arg Leu Thr Thr Val Ile Ser Pro Pro Val Asp Val		
610	615	620
Ile Ala Ser Cys Val Asn Cys Leu Thr Val Leu Ala Ala Arg Asn Pro		
625	630	635
Ala Lys Val Trp Thr Asp Leu Arg His Thr Gly Phe Leu Pro Phe Val		

	645	650	655
Ala His Pro Val Ser Ser Leu Ser Gln Met Ile Ser Ala Glu Gly Met			
660	665	670	
Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met Asn Ser Glu Gln Pro Gln			
675	680	685	
Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu Arg Leu Ile Thr Thr Leu			
690	695	700	
Val Lys Gly Gln Leu Gly Ser Thr Gln Ser Gln Gly Leu Val Pro Cys			
705	710	715	720
Val Met Phe Val Leu Lys Glu Met Leu Pro Ser Tyr His Lys Trp Arg			
725	730	735	
Tyr Asn Ser His Gly Val Arg Glu Gln Ile Gly Cys Leu Ile Leu Glu			
740	745	750	
Leu Ile His Ala Ile Leu Asn Leu Cys His Glu Thr Asp Leu His Ser			
755	760	765	
Ser His Thr Pro Ser Leu Gln Phe Leu Cys Ile Cys Ser Leu Ala Tyr			
770	775	780	
Thr Glu Ala Gly Gln Thr Val Ile Asn Ile Met Gly Ile Gly Val Asp			
785	790	795	800
Thr Ile Asp Met Val Met Ala Ala Gln Pro Arg Ser Asp Gly Ala Glu			
805	810	815	
Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys Thr Val Lys Leu Ala Phe			
820	825	830	
Ser Val Thr Asn Asn Val Ile Arg Leu Lys Pro Pro Ser Asn Val Val			
835	840	845	
Ser Pro Leu Glu Gln Ala Leu Ser Gln His Gly Ala His Gly Asn Asn			
850	855	860	
Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr His Lys His Asp Pro Ala			
865	870	875	880
Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys Arg Leu Ala Thr Val Ala			
885	890	895	
Pro Met Ser Val Tyr Ala Cys Leu Gly Asn Asp Ala Ala Ala Ile Arg			
900	905	910	
Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys Ile Glu Asp Met Arg Ile			
915	920	925	
Lys Val Met Ile Leu Glu Phe Leu Thr Val Ala Val Glu Thr Gln Pro			
930	935	940	
Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu Val Lys Asp Gly Ser Asp			

945	950	955	960
Gly Ser Lys Glu Phe Ser Leu Gly Met Trp Ser Cys Leu His Ala Val			
965		970	975
Leu Glu Leu Ile Asp Ser Gln Gln Asp Arg Tyr Trp Cys Pro Pro			
980	985	990	
Leu Leu His Arg Ala Ala Ile Ala Phe Leu His Ala Leu Trp Gln Asp			
995	1000	1005	
Arg Arg Asp Ser Ala Met Leu Val Leu Arg Thr Lys Pro Lys Phe Trp			
1010	1015	1020	
Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr Leu Ser Pro Pro Ser Glu			
1025	1030	1035	1040
Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys Ala Leu Ile Met Lys Ile			
1045	1050	1055	
Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys Gly Ser Leu Asp Gln Ser			
1060	1065	1070	
Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile Glu Lys Arg Phe Ala Tyr			
1075	1080	1085	
Trp Ser Gly Tyr Val Lys Ser Leu Ala Val His Val Ala Glu Thr Glu			
1090	1095	1100	
Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr Gln Met Leu Val Ser Ala			
1105	1110	1115	1120
Trp Arg Met Leu Leu Ile Ile Ala Thr Thr His Ala Asp Ile Met His			
1125	1130	1135	
Leu Thr Asp Ser Val Val Arg Arg Gln Leu Phe Leu Asp Val Leu Asp			
1140	1145	1150	
Gly Thr Lys Ala Leu Leu Leu Val Pro Ala Ser Val Asn Cys Leu Arg			
1155	1160	1165	
Leu Gly Ser Met Lys Cys Thr Leu Leu Leu Ile Leu Leu Arg Gln Trp			
1170	1175	1180	
Lys Ser Ile Leu Ser Arg Glu Leu Gly Ser Val Asp Glu Ile Leu Gly			
1185	1190	1195	1200
Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln Gln Leu			
1205	1210	1215	
Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr Val Leu			
1220	1225	1230	
Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser Gln Leu			
1235	1240	1245	
Val Leu Asn Val Cys Glu Thr Leu Gln Glu Val Ile Ala Leu Phe			

1250	1255	1260
Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu Asp Lys		
1265	1270	1275
1280		
Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg Asp Gln		
1285	1290	1295
Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu Leu Cys		
1300	1305	1310
Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg Arg Leu		
1315	1320	1325
Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu Arg Met		
1330	1335	1340
Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu Leu Thr		
1345	1350	1355
1360		
Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala Gly Ile		
1365	1370	1375
Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu Ser Thr		
1380	1385	1390
Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu Asp Ala		
1395	1400	1405
Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met Glu Gln		
1410	1415	1420
Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu Asp Phe		
1425	1430	1435
1440		
Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala Val Arg		
1445	1450	1455
Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr Val Gly		
1460	1465	1470
Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe His Leu		
1475	1480	1485
Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu Cys Gln		
1490	1495	1500
Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His Tyr Leu		
1505	1510	1515
1520		
Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln Arg Val		
1525	1530	1535
Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser Lys Gln		
1540	1545	1550
Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Ala Leu His Thr Val		

1555	1560	1565
Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala Leu Arg		
1570	1575	1580
His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser Leu Asp		
1585	1590	1595
Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr Pro Thr		
1605	1610	1615
Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala Thr Val		
1620	1625	1630
Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys Glu Pro		
1635	1640	1645
Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr Arg Thr		
1650	1655	1660
Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr Leu Leu		
1665	1670	1675
Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His Pro Arg		
1685	1690	1695
Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser Thr Leu		
1700	1705	1710
Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser Ser Pro		
1715	1720	1725
Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser Leu Ser		
1730	1735	1740
Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val Gln Ala		
1745	1750	1755
Phe Val Arg His Met Gln Arg Met Ala Ser Gly Gly Val Arg Ala		
1765	1770	1775
Ser Gly Arg Ala Lys Met Ala Ala Ala Gly Gly Pro Cys Val Arg		
1780	1785	1790
Ser Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg		
1795	1800	1805
Glu Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu		
1810	1815	1820
Leu Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu		
1825	1830	1835
Lys Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly		
1845	1850	1855
Leu Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln		

1860	1865	1870
Leu Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser		
1875	1880	1885
Val Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu		
1890	1895	1900
Lys Ile Ala Asp Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys		
1905	1910	1915
Val Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg		
1925	1930	1935
Val Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser		
1940	1945	1950
Lys Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr		
1955	1960	1965
Trp Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp		
1970	1975	1980
Phe Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe		
1985	1990	1995
Leu Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu		
2005	2010	2015
Thr Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg		
2020	2025	2030
His Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr		
2035	2040	2045
Phe Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His		
2050	2055	2060
Lys Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp		
2065	2070	2075
Gly Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp		
2085	2090	2095
Ile Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His		
2100	2105	2110
Thr Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly		
2115	2120	2125
Thr Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln		
2130	2135	2140
Ser Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met		
2145	2150	2155
Cys Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His		

2165	2170	2175
Thr Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu 2180	2185	2190
Ala Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser 2195	2200	2205
Gly Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu 2210	2215	2220
Leu Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser 2225	2230	2235
Thr Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn 2245	2250	2255
Glu Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly 2260	2265	2270
Thr Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly 2275	2280	2285
Gln Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu 2290	2295	2300
Asp Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp 2305	2310	2315
Thr Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr 2325	2330	2335
Ala Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu 2340	2345	2350
Val His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu 2355	2360	2365
Pro Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val 2370	2375	2380
Ile Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr 2385	2390	2395
Val Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His 2405	2410	2415
Thr Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln 2420	2425	2430
Met Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu 2435	2440	2445
Met Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe 2450	2455	2460
Leu Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln		

2465	2470	2475	2480
Ser Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu			
2485	2490	2495	
Pro Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln			
2500	2505	2510	
Ile Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys			
2515	2520	2525	
His Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu			
2530	2535	2540	
Cys Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn			
2545	2550	2555	2560
Ile Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln			
2565	2570	2575	
Pro Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Leu Leu Ile			
2580	2585	2590	
Lys Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu			
2595	2600	2605	
Lys Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln			
2610	2615	2620	
His Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile			
2625	2630	2635	2640
Tyr His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu			
2645	2650	2655	
Lys Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly			
2660	2665	2670	
Asn Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser			
2675	2680	2685	
Lys Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr			
2690	2695	2700	
Val Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu			
2705	2710	2715	2720
Glu Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met			
2725	2730	2735	
Trp Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln			
2740	2745	2750	
Asp Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe			
2755	2760	2765	
Leu His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu			

2770	2775	2780
Arg Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly		
2785	2790	2795
2800		
Thr Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr		
2805	2810	2815
Cys Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val		
2820	2825	2830
Lys Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser		
2835	2840	2845
Ile Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala		
2850	2855	2860
Val His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu		
2865	2870	2875
2880		
Tyr Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr		
2885	2890	2895
Thr His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln		
2900	2905	2910
Leu Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro		
2915	2920	2925
Ala Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu		
2930	2935	2940
Leu Ile Leu Leu Arg Gln Trp Lys Ser Ile Leu Ser Arg Glu Leu Gly		
2945	2950	2955
2960		
Ser Val Asp Glu Ile Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val		
2965	2970	2975
Leu Gln Ala Asp Gln Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe		
2980	2985	2990
Ser Ala Phe Ile Thr Val Leu Gln Met Lys Glu Met Lys Val Ser Asp		
2995	3000	3005
Ile Pro Gln Tyr Ser Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln		
3010	3015	3020
Glu Glu Val Ile Ala Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu		
3025	3030	3035
3040		
Gly Ser Ala Thr Glu Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser		
3045	3050	3055
Arg Ser Arg His Arg Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu		
3060	3065	3070
His Leu Ala Lys Glu Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp		

3075	3080	3085
Leu Gln Val Thr Arg Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr		
3090	3095	3100
Leu Glu Val Ser Leu Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala		
3105	3110	3115
3120		
Thr Leu His Leu Leu Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr		
3125	3130	3135
Ala Val Ala Gly Ala Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu		
3140	3145	3150
Ser Val Tyr Gln Leu Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala		
3155	3160	3165
Ser Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu		
3170	3175	3180
Ser Met Ser Leu Met Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe		
3185	3190	3195
3200		
Leu Pro Glu Ala Leu Asp Phe Val Gly Val His Gln Glu Arg Thr Leu		
3205	3210	3215
Gln Cys Leu Asn Ala Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu		
3220	3225	3230
Glu Ala Asp His Thr Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met		
3235	3240	3245
Lys Glu Trp His Phe His Leu Pro Gln Leu Met Arg Asp Ile Gln Val		
3250	3255	3260
Asn Leu Gly Tyr Leu Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg		
3265	3270	3275
3280		
Lys Met Leu Gln His Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro		
3285	3290	3295
Ser Ala Val Ala Gln Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala		
3300	3305	3310
Ala Pro Ser Ser Ser Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu		
3315	3320	3325
Gln Gln Ala Leu His Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser		
3330	3335	3340
Lys Thr Leu Ala Ala Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile		
3345	3350	3355
3360		
Leu Leu Asp Gln Ser Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala		
3365	3370	3375
Leu Ser Phe Thr Thr Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe		

3380	3385	3390
Gly Thr Leu Leu Ala Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu		
3395	3400	3405
Leu Asp Lys Lys Lys Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr		
3410	3415	3420
Gln Ala Glu Gly Thr Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met		
3425	3430	3435
Glu Asn Cys Phe Tyr Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg		
3445	3450	3455
Asp Pro Ala Val His Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu		
3460	3465	3470
Ser Ser Glu Leu Ser Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg		
3475	3480	3485
Arg Gly Ala Pro Ser Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln		
3490	3495	3500
Gly Lys Ser Thr Ser Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro		
3505	3510	3515
Leu Ile Gln Leu Val Gln Ala Phe Val Arg His Met Gln Arg		
3525	3530	
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<211> 1111		
<212> PRT		
<213> Homo sapiens		
<400> 23		
Met Thr Gln Met Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly		
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15		
Ser Leu Leu Met Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr		
20	25	30
Ile Ala Phe Leu Arg Leu Val Thr Thr Leu Val Lys Gly Gln Leu Gly		
35	40	45
Ser Thr Gln Ser Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys		
50	55	60
Glu Met Leu Pro Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val		
65	70	75
80		
Arg Glu Leu Ile Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu		
85	90	95
Asn Leu Cys Gln Glu Thr Glu Leu His Ser Ser His Thr Pro Ser Leu		
100	105	110

Pro Ser Leu Cys Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr
 115 120 125
 Val Ile Ser Ile Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met
 130 135 140
 Ala Ala Gln Pro Arg Ser Asp Gly Pro Glu Gly Gln Gly Gln Gln
 145 150 155 160
 Leu Leu Ile Lys Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val
 165 170 175
 Ile Arg Leu Lys Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala
 180 185 190
 Leu Thr Gln His Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala
 195 200 205
 Lys Tyr Ile Tyr His Arg His Asp Pro Ala Leu Pro Arg Leu Ala Ile
 210 215 220
 Gln Leu Leu Lys Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala
 225 230 235 240
 Cys Leu Gly Ser Asp Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg
 245 250 255
 Leu Gln Ser Lys Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu
 260 265 270
 Phe Leu Thr Val Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe
 275 280 285
 Leu Asn Leu Glu Val Lys Asp Gly Ser Asn Gly Ser Lys Glu Phe Ser
 290 295 300
 Leu Gly Val Trp Ser Cys Leu His Val Val Leu Glu Leu Ile Asp Ser
 305 310 315 320
 Gln Gln Gln Asp Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala
 325 330 335
 Ile Ala Phe Leu His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met
 340 345 350
 Leu Val Leu Arg Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro
 355 360 365
 Leu Phe Gly Thr Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Val
 370 375 380
 Leu Glu Thr Cys Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr
 385 390 395 400
 Tyr Val Val Lys Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys
 405 410 415

Lys Phe Ser Ser Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys
 420 425 430
 Ser Leu Ala Val Tyr Met Ala Asp Thr Glu Gly Ser Ser Cys Thr Ser
 435 440 445
 Leu Leu Glu Tyr Gln Met Leu Val Ser Ala Trp Arg Ile Leu Leu Ile
 450 455 460
 Ile Ala Ala Ser His Ala Asp Val Met His Leu Thr Asp Met Ala Val
 465 470 475 480
 Arg Arg Gln Leu Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu
 485 490 495
 Leu Val Ala Ala Ser Val Asn Cys Leu Arg Leu Gly Ser Met Met Cys
 500 505 510
 Thr Leu Leu Leu Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ala
 515 520 525
 Val Glu Lys Ile Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu
 530 535 540
 Gln Ala Asp Gln Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser
 545 550 555 560
 Ala Phe Ile Thr Val Leu Gln Met Lys Glu Leu Arg Val Gly Asp Ile
 565 570 575
 Pro Gln Tyr Ser Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu
 580 585 590
 Glu Val Ile Ala Leu Phe Asp Gln Thr Arg His Ser Leu Ala Ser Asp
 595 600 605
 Ser Ala Ala Glu Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Pro Arg
 610 615 620
 Pro Arg His Lys Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His
 625 630 635 640
 Leu Ala Lys Glu Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu
 645 650 655
 Gln Val Thr Arg Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu
 660 665 670
 Glu Val Ser Leu Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Ala
 675 680 685
 Leu His Leu Leu Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala
 690 695 700
 Val Ala Gly Ala Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser
 705 710 715 720

Val Tyr Gln Leu Ser Ser Asn Gly Thr Gly Gln Thr Pro Ser Thr Ser
 725 730 735
 Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser
 740 745 750
 Met Ser Leu Met Glu Arg Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu
 755 760 765
 Thr Glu Ala Leu Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln
 770 775 780
 Cys Leu Asn Ala Val Lys Thr Val Gln Ser Leu Ala Cys Leu Glu Glu
 785 790 795 800
 Ala Asp His Thr Val Gly Phe Ile Leu Gln Leu Ser His Phe Arg Lys
 805 810 815
 Glu Trp His Phe His Leu Pro Gln Leu Met Arg Asp Val Gln Val Asn
 820 825 830
 Leu Gly Tyr Leu Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys
 835 840 845
 Met Leu Gln His Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser
 850 855 860
 Ala Val Thr Pro Arg Ala Gln Arg Pro Ser Thr Thr Thr Thr Thr Thr
 865 870 875 880
 Thr Thr Thr Ala Leu Ala Thr Pro Ala Gly Cys Ser Ser Lys Gln
 885 890 895
 Pro Thr Ala Asp Thr Glu Ala Ser Glu Gln Arg Ala Leu His Thr Val
 900 905 910
 Gln Tyr Gly Leu Leu Lys Ile Leu Ser Arg Thr Leu Ala Ala Leu Arg
 915 920 925
 His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser Leu Asp
 930 935 940
 Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr Pro Thr
 945 950 955 960
 Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala Thr Val
 965 970 975
 Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys Glu Ser
 980 985 990
 Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr Arg Thr
 995 1000 1005
 Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr Leu Leu
 1010 1015 1020

Ile Ser Gln Ala Val Arg Tyr Leu Arg Asp Pro Ala Val His Pro Arg
1025 1030 1035 1040

Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser Thr Leu
1045 1050 1055

Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser Ser Pro
1060 1065 1070

Ala Ala Gly Val Leu Pro Ser Pro Gln Gly Lys Ala Thr Ser Leu Ser
1075 1080 1085

Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val Gln Ala
1090 1095 1100

Phe Val Arg His Val Gln Arg
1105 1110

<210> 24

<211> 853

<212> PRT

<213> Homo sapiens

<400> 24

Val Thr Ile Ala Phe Leu Arg Leu Ile Thr Thr Leu Val Lys Gly Gln
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Leu Gly Ser Thr Gln Ser Gln Gly Leu Val Pro Cys Val Met Phe Val
20 25 30

Leu Lys Glu Met Leu Pro Ser Tyr His Lys Trp Arg Tyr Asn Ser His
35 40 45

Gly Val Arg Glu Gln Ile Gly Cys Leu Ile Leu Glu Leu Ile His Ala
50 55 60

Ile Leu Asn Leu Cys His Glu Thr Asp Leu His Ser Ser His Thr Pro
65 70 75 80

Ser Leu Gln Phe Leu Cys Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly
85 90 95

Gln Thr Val Ile Asn Ile Met Gly Ile Gly Val Asp Thr Ile Asp Met
100 105 110

Val Met Ala Ala Gln Pro Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln
115 120 125

Gly Gln Leu Leu Ile Lys Thr Val Lys Leu Ala Phe Ser Val Thr Asn
130 135 140

Asn Val Ile Arg Leu Lys Pro Pro Ser Asn Val Val Ser Pro Leu Glu
145 150 155 160

Gln Ala Leu Ser Gln His Gly Ala His Gly Asn Asn Leu Ile Ala Val
165 170 175

Leu Ala Lys Tyr Ile Tyr His Lys His Asp Pro Ala Leu Pro Arg Leu
 180 185 190
 Ala Ile Gln Leu Leu Lys Arg Leu Ala Thr Val Ala Pro Met Ser Val
 195 200 205
 Tyr Ala Cys Leu Gly Asn Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu
 210 215 220
 Thr Arg Leu Gln Ser Lys Ile Glu Asp Met Arg Ile Lys Val Met Ile
 225 230 235 240
 Leu Glu Phe Leu Thr Val Ala Val Glu Thr Gln Pro Gly Leu Ile Glu
 245 250 255
 Leu Phe Leu Asn Leu Glu Val Lys Asp Gly Ser Asp Gly Ser Lys Glu
 260 265 270
 Phe Ser Leu Gly Met Trp Ser Cys Leu His Ala Val Leu Glu Leu Ile
 275 280 285
 Asp Ser Gln Gln Gln Asp Arg Tyr Trp Cys Pro Pro Leu Leu His Arg
 290 295 300
 Ala Ala Ile Ala Phe Leu His Ala Leu Trp Gln Asp Arg Arg Asp Ser
 305 310 315 320
 Ala Met Leu Val Leu Arg Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr
 325 330 335
 Ser Pro Leu Phe Gly Thr Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro
 340 345 350
 Ser Ile Leu Glu Thr Cys Ala Leu Ile Met Lys Ile Ile Cys Leu Glu
 355 360 365
 Ile Tyr Tyr Val Val Lys Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr
 370 375 380
 Leu Lys Lys Phe Ser Ile Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr
 385 390 395 400
 Val Lys Ser Leu Ala Val His Val Ala Glu Thr Glu Gly Ser Ser Cys
 405 410 415
 Thr Ser Leu Leu Glu Tyr Gln Met Leu Val Ser Ala Trp Arg Met Leu
 420 425 430
 Leu Ile Ile Ala Thr Thr His Ala Asp Ile Met His Leu Thr Asp Ser
 435 440 445
 Val Val Arg Arg Gln Leu Phe Leu Asp Val Leu Asp Gly Thr Lys Ala
 450 455 460
 Leu Leu Leu Val Pro Ala Ser Val Asn Cys Leu Arg Leu Gly Ser Met
 465 470 475 480

Lys Cys Thr Leu Leu Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu
 485 490 495

 Gly Ser Val Asp Glu Ile Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly
 500 505 510

 Val Leu Gln Ala Asp Gln Gln Leu Met Glu Lys Thr Lys Ala Lys Val
 515 520 525

 Phe Ser Ala Phe Ile Thr Val Leu Gln Met Lys Glu Met Lys Val Ser
 530 535 540

 Asp Ile Pro Gln Tyr Ser Gln Leu Val Leu Asn Val Cys Glu Thr Leu
 545 550 555 560

 Gln Glu Glu Val Ile Ala Leu Phe Asp Gln Thr Arg His Ser Leu Ala
 565 570 575

 Leu Gly Ser Ala Thr Glu Asp Lys Asp Ser Met Glu Thr Asp Asp Cys
 580 585 590

 Ser Arg Ser Arg His Arg Asp Gln Arg Asp Gly Val Cys Val Leu Gly
 595 600 605

 Leu His Leu Ala Lys Glu Leu Cys Glu Val Asp Glu Asp Gly Asp Ser
 610 615 620

 Trp Leu Gln Val Thr Arg Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr
 625 630 635 640

 Thr Leu Glu Val Ser Leu Arg Met Lys Gln Asn Leu His Phe Thr Glu
 645 650 655

 Ala Thr Leu His Leu Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala
 660 665 670

 Thr Ala Val Ala Gly Ala Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu
 675 680 685

 Leu Ser Val Tyr Gln Leu Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser
 690 695 700

 Ala Ser Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg
 705 710 715 720

 Leu Ser Met Ser Leu Met Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn
 725 730 735

 Phe Leu Pro Glu Ala Leu Asp Phe Val Gly Val His Gln Glu Arg Thr
 740 745 750

 Leu Gln Cys Leu Asn Ala Val Arg Thr Val Gln Ser Leu Ala Cys Leu
 755 760 765

 Glu Glu Ala Asp His Thr Val Gly Phe Ile Leu Gln Leu Ser Asn Phe
 770 775 780

Met Lys Glu Trp His Phe His Leu Pro Gln Leu Met Arg Asp Ile Gln
785 790 795 800

Val Gly Ala Gln Asp Gly Val Leu Glu Ser Gly Val Met Leu Gly Asp
805 810 815

Arg Glu Ala Val Arg Ser His Trp Gly Thr Pro Ser Glu Leu Gln Asp
820 825 830

Val Pro Glu Arg Gly Leu Phe Pro Trp Gly Ala Gln Gly Leu Leu Ser
835 840 845

Cys Ala Tyr Ser Gly
850

<210> 25

<211> 525

<212> PRT

<213> Mus musculus

<400> 25

Thr Arg Pro Leu Gln Glu Glu Val Ile Ala Leu Phe Asp Gln Thr Arg
1 5 10 15

His Ser Leu Ala Ser Asp Ser Ala Ala Glu Asp Lys Asp Ser Met Glu
20 25 30

Thr Asp Asp Cys Pro Arg Pro Arg His Lys Asp Gln Arg Asp Gly Val
35 40 45

Cys Val Leu Gly Leu His Leu Ala Lys Glu Leu Cys Glu Val Asp Glu
50 55 60

Asp Gly Asp Ser Trp Leu Gln Val Thr Arg Arg Leu Pro Ile Leu Pro
65 70 75 80

Thr Leu Leu Thr Thr Leu Glu Val Ser Leu Arg Met Lys Gln Asn Leu
85 90 95

His Phe Thr Glu Ala Ala Leu His Leu Leu Leu Thr Leu Ala Arg Thr
100 105 110

Gln Gln Gly Ala Thr Ala Val Ala Gly Ala Gly Ile Thr Gln Ser Ile
115 120 125

Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu Ser Ser Asn Gly Thr Gly
130 135 140

Gln Thr Pro Ser Thr Ser Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro
145 150 155 160

Gly Val Tyr Arg Leu Ser Met Ser Leu Met Glu Arg Leu Leu Lys Thr
165 170 175

Leu Arg Tyr Asn Phe Leu Thr Glu Ala Leu Asp Phe Val Gly Val His

180	185	190
Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala Val Lys Thr Val Gln Ser		
195	200	205
Leu Ala Cys Leu Glu Glu Ala Asp His Thr Val Gly Phe Ile Leu Gln		
210	215	220
Leu Ser His Phe Arg Lys Glu Trp His Phe His Leu Pro Gln Leu Met		
225	230	235
Arg Asp Val Gln Val Asn Leu Gly Tyr Leu Cys Gln Ala Cys Thr Ser		
245	250	255
Leu Leu His Ser Arg Lys Met Leu Gln His Tyr Leu Gln Asn Lys Asn		
260	265	270
Gly Asp Gly Leu Pro Ser Ala Val Thr Pro Arg Ala Gln Arg Pro Ser		
275	280	285
Thr Thr Thr Thr Thr Thr Thr Ala Leu Ala Thr Pro Ala		
290	295	300
Gly Cys Ser Ser Lys Gln Pro Thr Ala Asp Thr Glu Ala Ser Glu Gln		
305	310	315
Arg Ala Leu His Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Arg		
325	330	335
Thr Leu Ala Ala Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu		
340	345	350
Leu Asp Gln Ser Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu		
355	360	365
Ser Phe Thr Thr Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly		
370	375	380
Thr Leu Leu Ala Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu		
385	390	395
Asp Lys Lys Glu Ser Leu Thr Gln Ala Val Gly Leu Ser Thr Gln		
405	410	415
Ala Glu Gly Thr Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu		
420	425	430
Asn Cys Phe Tyr Leu Leu Ile Ser Gln Ala Val Arg Tyr Leu Arg Asp		
435	440	445
Pro Ala Val His Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser		
450	455	460
Ser Glu Leu Ser Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg		
465	470	475
Gly Ala Pro Ser Ser Pro Ala Ala Gly Val Leu Pro Ser Pro Gln Gly		

485

490

495

Lys Ala Thr Ser Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu
500 505 510

Ile Gln Leu Val Gln Ala Phe Val Arg His Val Gln Arg
515 520 525

<210> 26
<211> 6
<212> PRT
<213> Homo sapiens

<400> 26
Ala Gly Gly Pro Cys Val
1 5